



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,661	08/17/2006	Lewis Cheng	102907-437-NP	4597

24964 7590 06/08/2009  
GOODWIN PROCTER LLP  
ATTN: PATENT ADMINISTRATOR  
620 Eighth Avenue  
NEW YORK, NY 10018

EXAMINER
----------

ZHAO, YU

ART UNIT	PAPER NUMBER
----------	--------------

2169

MAIL DATE	DELIVERY MODE
-----------	---------------

06/08/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/551,661	<b>Applicant(s)</b> CHENG ET AL.	
	<b>Examiner</b> YU ZHAO	<b>Art Unit</b> 2169	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 13-16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Response to Amendment*

1. Acknowledgment is made of applicant's amendment filed on **February 17, 2009**.  
**Claims 1-12 are presented for examination.**  
**Claims 13-16 are withdrawn.**

### *Response to Argument*

2. Applicant's arguments with respect to claims filed on **February 17, 2009**, have been fully considered but they are not deemed persuasive:  
Applicants state that "The Examiner objected to the Specification because it contained embedded hyperlinks and improperly formatted trademarks. The Examiner also objected to the Abstract because it was not compliant with U,S, format. Applicants have amended the Specification and Abstract in accordance with the Examiner's suggestions. Applicants therefore request that the objections be withdrawn."

The Examiner respectfully disagrees. Abstract still contain item numbers from the drawings (e.g. The invention utilize question data **(301)**...**(305)**...). Also, applicants only delete "http://", however the hyperlinks are still recited in the Specification (e.g. [www.macromedia.com](http://www.macromedia.com), [.](http://www.planetii.com/home/...etc.)

Applicants argue that, "Confusingly, the Examiner both claims that Hind discloses and concedes that Hind does not disclose "if the data type id TEXT..." Applicants request clarification of the Examiner's contentions regarding these elements."

Examiner has clarified office action, that both Hind and Reiley disclose the above limitations. Although, Reiley does not disclose MATHML, Hind does. With support from Hind, Reiley disclose the above limitations.

Applicants argue that, "The references cited by the Examiner do not disclose displaying said node data in accordance with said data type, wherein: if the data type is "TEXT: create a text object having said textual node data and locate a display line to display said text object in accordance with predetermined formatting conventions, if the data type is FILE: create a file object having said external file indicia node data and locate a display line to load and display said file object in-line with previously rendered text and in accordance with predetermined formatting conventions, if the data type is MathML create a MathML data object having said stored MathML node data and locate a display line to display said MathML data object in-line with previously rendered text and in accordance with predetermined formatting conventions," as required by independent Claims 1 and 7, from which all of the pending claims depend."

"These claim limitations require displaying node data in accordance with data type ~\herein text, file, and MathML, objects are created and display lines are located to display each object in-line with previously rendered text, The Examiner contends that these limitations are disclosed by Reiley at page 2, paragraph 16. Reiley, however, only discloses creating a hierarchical arrangement of nodes corresponding to elements on a web page. It does not disclose locating display lines in-line with previously rendered text nor actually displaying the node data, as required by Claims 1 and 7. Additionally, Hind

Art Unit: 2169

also does not disclose creating objects based on data types and locating display lines for each of the objects. One skilled in the art would understand that Hind deals only with using a style sheet to produce an "output document" that can be used by various devices."

The Examiner respectfully disagrees. Hind et al. disclose "Consequently, style sheets may also be utilized to describe transformations from one document type to another (e.g. from MathML to HTML)" (Hind et al.: column 1, lines 35-40) and "Style sheets include **"template rule" constructs**, which define an input pattern and a template (also known as an "action") to use in **creating an output result tree fragment**. When applying a style sheet, the patterns in the templates are matched against the syntax of the source document. **When a match is found with the template pattern, an output document fragment is created according to the actions specified in the template (which may include processing additional elements in the source document beyond the matching element).** The source document is parsed recursively, until no more matching patterns are found. The resulting document fragments are then aggregated to yield a complete output document. (For more information on this process, refer to section 2, **"Tree Construction"**, in the XSL Specification.) It is this template matching and substitution of **different document elements**

Art Unit: 2169

according to the actions in the matching rules that enables style sheets to transform documents. (**While the term "document" is used herein when discussing encoded data and application of style sheets thereto, it is to be understood that the information on which a style sheet operates may represent any type of information,** and is not limited to the traditional interpretation of the word "document"...)" (Hind et al.: column 1, line 60 – column 2, line 22). Hind et al. disclose "While the **term "document"** is used herein when discussing encoded data and application of style sheets thereto, it is to be understood that the information on which a style sheet operates **may represent any type of information**" where "TEXT", "FILE" or "MATHML" can all be interpreted under "any type of information." And "When a match is found with the template pattern, an output document fragment is created according to the actions specified in the template (which may include processing additional elements in the source document beyond the matching element)" can be interpreted as determining if the data type is "TEXT", "FILE" or "MATHML"

Reiley et al. disclose "The aforementioned needs are satisfied by the disclosed device and method for transforming content from a native format into a device specific format that is configured for use and display by a requesting device...The content

Art Unit: 2169

transformer retrieves the content and conducts a semantic and/or heuristic analysis of the content using a set of general or user-defined rules. Based upon the analysis, the content transformer generates a user device version of the content that is tailored for display on the user device and that provides an easily-navigable overview of the content. Advantageously, the transformed version of the contents does not require the user device to have a high data transmission bandwidth or high memory capacity.” (Reiley et al.: page 1, paragraph [0013]) which can be interpreted as when inputs are different type of information (e.g.: “TEXT”, “FILE” or “MATHML”), the process will display on the user device based on a set of general rules (e.g. what is displayed on where or which location on the display).

Applicants argues that, “The references cited by the Examiner also do not disclose the traverse procedure claimed in Claims 1 anti 7. This traverse procedure is recited int eh independent claims as including "visiting a node of said tree, determining the data type of said node, [and] displaying said node data in accordance with said data type.” The traverse procedure is executed by “applying said traverse procedure upon the left subtree of said visited node: applying said traverse procedure upon the right subtree of said visited node;; and applying said traverse procedure upon said root node such that said root node is the first visited node.” The Examiner contends that these limitations are disclosed by Boehme at Col. 5, 11.37-44. Boehme, however, does not disclose,

Art Unit: 2169

inter alia, determining the data type of each node. Rather, Boehme is focused on "searching for elements,"

Reiley et al. disclose "determining the data type of each node" (Reiley: page 6, paragraph [0066], "In the course of the semantic analysis, the content transformer 140 preferably *uses the analysis rules to classify each of the nodes as one of a predefined category.*").



***Specification***

3. The disclosure is objected to because it contains **embedded hyperlinks** [www.w3.org](http://www.w3.org)... (page 3, line 2), and [www.macromedia.com](http://www.macromedia.com) (page 3, line 12) and/or other form of browser-executable code. Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.
4. The use of the trademarks has been noted in this application. It should be **capitalized** wherever it appears and be accompanied by the generic terminology. Appropriate correction is required
5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because the abstract is not compliant in U.S. format.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-5 and 7-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hind et al. (U.S. Patent No.: 6,463,440 B1, hereinafter, Hind), in view of Reiley et al. (U.S. Pub. No.: U.S. 2002/0016801 A1, hereinafter, Reiley), and further in view of Boehme et al. (U.S. Pub. No.: U.S. 6,578,192 B1, hereinafter, Boehme).**

**For claim 1, Hind discloses a display system for multimedia content data comprising Mathematical Markup Language (MathML) data, said system comprising:**

**a display medium having a plurality of display lines for rendering multimedia content data thereon** (Hind: column 1, lines 31-34, "Style sheets can be used for many types of presentation of a document, including printing the document, displaying it on a video display...");

**a processor associated with said display medium and configured to** (Hind: column 6, lines 7-24, "The workstation 10 includes a microprocessor 12 and a bus 14 employed to connect...The bus 14 also connects a display device 24, such as an LCD screen or monitor, to the microprocessor 12 via a display adapter 26.");

**receive said multimedia content data comprising textual, MathML, and external file indicia data** (Hind: column 2, lines 54-56, "...a document includes large objects such as image, video, or audio files...", column 1, lines 27-28, "A "style sheet" is a specification of a style that is to be used when presenting a document.", column 1, lines 36-37,

Art Unit: 2169

“...transformations from one document type to another (e.g. from MathML to HTML)”);

**parse said received multimedia content data to derive said textual, MathML and external file indicia data** (Hind: column 2, lines 3-4, “The source document is parsed recursively, until no more matching patterns are found.”);

**if the data type is TEXT: create a text object having said textual node data and locate a display line to display said text object in accordance with predetermined formatting conventions** (Hind: column 1, lines 61-65, “Style sheets include “template rule” constructs, which define an input pattern and a template (also known as an “action”) to use in *creating an output result tree fragment...*”, column 5, lines 25-45, “...creating an object comprises: a first attribute, a second attribute, and a third attribute; and wherein the storing further comprises: storing a unique identifier of the object in the first attribute; storing the stored extracted characteristics in the second attribute, wherein the characteristic pairs are delimited from one another using a first special character and wherein the characteristic identifier is delimited from the characteristic value in each of the pairs using a second special character; and storing the identifier of the selected style sheet in the third attribute.”),

**if the data type is FILE: create a file object having said external file indicia node data and locate a display line to load and display said file object in-line with previously rendered text and in accordance with predetermined formatting conventions** (Hind: column 1, lines 61-65, column 5, lines 25-45),

**if the data type is MATHML, create a MathML data object having said stored MathML node data and locate a display line to display said MathML data object in-line with previously rendered text and in accordance with predetermined formatting conventions** (Hind: column 1, lines 61-65, column 5, lines 25-45),

However, Hind does not explicitly disclose categorize said textual, MathML and file data according to a data type; wherein said textual data is defined as a TEXT data type, said MathML data is defined as a MATHML data type and said external file indicia data is defined as a FILE data type;

store said derived and categorized textual, MathML and external file indicia data as a tree having a root node and a plurality of offspring nodes that define left and right subtrees, said root node and said offspring nodes each having one of said derived textual, MathML and external file indicia data and respective data type association;

define a traverse procedure that includes:

visiting a node of said tree,

determining the data type of said node;

displaying said node data in accordance with said data type, wherein:

applying said traverse procedure upon the left subtree of said visited node;

applying said traverse procedure upon the right subtree of said visited node; and

applying said traverse procedure upon said root node such that said root node is the first visited node.

**Reiley discloses categorize said textual, MathML and file data according to a data type; wherein said textual data is defined as a TEXT data type, said MathML data is defined as a MATHML data type and said external file indicia data is defined as a FILE data type** (Reiley: page 6, paragraph [0066], *“In the course of the semantic analysis, the content transformer 140 preferably uses the analysis rules to classify each of the nodes as one of a predefined category.”*);

**store said derived and categorized textual, MathML and external file indicia data as a tree having a root node and a plurality of offspring nodes that define left and right subtrees, said root node and said offspring nodes each having one of said derived textual, MathML and external file indicia data and respective data type association** (Reiley: page 2, paragraph [0016], *“...creates a native hierarchical arrangement having nodes that each correspond to a Web page element from the Web page; performs a structural and semantic analysis on the native hierarchical arrangement according to a set of rules, wherein the semantic analysis comprises examining the relative location and meaning of each element in the native hierarchical arrangement and identifying nodes for deletion from the hierarchical structure; and creates a transformed hierarchical arrangement based upon the structural*

Art Unit: 2169

and semantic analysis, wherein the transformed hierarchical arrangement takes into account the relative location and meaning of the elements in the native hierarchical arrangement.”);

**displaying said node data in accordance with said data type, wherein:**

**if the data type is TEXT: create a text object having said textual node data and locate a display line to display said text object in accordance with predetermined formatting conventions** (Reiley: page 2, paragraph [0016], “and creates a transformed hierarchical arrangement based upon the structural and semantic analysis, wherein the transformed hierarchical arrangement takes into account the relative location and meaning of the elements in the native hierarchical arrangement.”),

**if the data type is FILE: create a file object having said external file indicia node data and locate a display line to load and display said file object in-line with previously rendered text and in accordance with predetermined formatting conventions** (Reiley: page 2, paragraph [0016]),

**if the data type is MATHML, create a MathML data object having said stored MathML node data and locate a display line to display said MathML data object in-line with previously rendered text and in accordance with predetermined formatting conventions** (Reiley: page 2, paragraph [0016])

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon “Retrieval of style sheets from

directories based upon partial characteristic matching” as taught by Hind by implementing “Adaptive profile-based mobile document integration” as taught by Reiley, because it would provide Hind’s system with the enhanced capability of “for transforming content from a native format into a device specific format that is configured for use and display by a requesting device.” (Reiley: page 1, paragraph [0013]).

However, Hind and Reiley do not explicitly disclose

define a traverse procedure that includes:

visiting a node of said tree, determining the data type of said node;

applying said traverse procedure upon the left subtree of said visited node;

applying said traverse procedure upon the right subtree of said visited node; and

applying said traverse procedure upon said root node such that said root node is the first visited node

**Boehme discloses define a traverse procedure that includes:**

**visiting a node of said tree, determining the data type of said node**

(Boehme: column 5, lines 36-43, “The BSP processor 203 then does a preorder top-down left-to-right walk through the DOM tree, searching for <BSP> elements, as shown in block 205. Each such element encountered is processed by passing its child elements, in left-to-right order, to a BML interpreter 206, along with context information describing the HTTP “get”

request 201 and a reference to the "Document" root node of the DOM tree.");

**applying said traverse procedure upon the left subtree of said visited node; applying said traverse procedure upon the right subtree of said visited node; and applying said traverse procedure upon said root node such that said root node is the first visited node** (Boehme: column 5, lines 36-43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon "Retrieval of style sheets from directories based upon partial characteristic matching" as taught by Hind by implementing "Method and system for supporting dynamic document content expressed in a component-level language" as taught by Boehme, because it would provide Hind and Reiley's system with the enhanced capability of "passing the BSP source file out to the HTML or XML parser 204 for rendering a DOM representation, which is easier for a program to manipulate than XML textual form." (Boehme: column 5, lines 32-36).

**Claim 2** is rejected as substantially similar as claim 1, for the similar reasons.

**For claim 3, Hind, Reiley and Boehme disclose the modified system as in claim 1 or 2 wherein said multimedia content data comprises Markup Language data** (Hind: column 1, lines 35-39).

**For claim 4, Hind, Reiley and Boehme disclose the modified system as in claim 3 wherein said Markup Language data comprises Extensible Markup**



Art Unit: 2169

**Language (XML) data** (Hind: column 1, lines 40-60, "An XSL Style Sheet specifies how an XML document is to be transformed for presentation, resulting in a different document which may or may not maintain the original document type.").

**For claim 5, Hind, Reiley and Boehme disclose them modified system as in claim 1 or 2 wherein said external file indicia data comprises information associated with data files comprising graphics, video, animation, other displayable assets or a combination thereof** (Hind: column 2, lines 54-56, "...a document includes large objects such as image, video, or audio files...").

**Claim 7** is rejected as substantially similar as claim 1, for the similar reasons.

**Claim 8** is rejected as substantially similar as claim 2, for the similar reasons.

**Claim 9** is rejected as substantially similar as claim 3, for the similar reasons.

**Claim 10** is rejected as substantially similar as claim 4, for the similar reasons.

**Claim 11** is rejected as substantially similar as claim 5, for the similar reasons.

**7. Claims 6 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hind et al. (U.S. Patent No.: 6,463,440 B1, hereinafter, Hind), in view of Reiley et al. (U.S. Pub. No.: U.S. 2002/0016801 A1, hereinafter, Reiley), and further in view of Boehme et al. (U.S. Pub. No.: U.S. 6,578,192 B1, hereinafter, Boehme) as applied to claims 1 and 7, and further in view of Kim et al. (U.S. Pub. No.: 2003/0120686 A1, hereinafter, Kim).**

**For claim 6, Hind, Reiley and Boehme disclose the modified system as in claim 4.**

**However, Hind, Reiley and Boehme do not explicitly disclose wherein said data files are Macromedia or Flash-compatible files.**

**disclose wherein said data files are Macromedia or Flash-compatible files**  
(Kim: page 1, paragraph [0009], "Then the user can  
manipulate/add/subtract the HTML tag or tags around the  
associated meta-tag information of the source XML file in the  
source HTML file for customizing the HTML tags using WYSISWYG  
HTML editors such as Microsoft FrontPage, macromedia...").

It would have been obvious to one of ordinary skill in the art at the time the invention was made to improve upon "Retrieval of style sheets from directories based upon partial characteristic matching" as taught by Hind by implementing "Extensible stylesheet designs using meta-tag and/or associated meta-tag information" as taught by Kim, because it would provide Hind, Reiley and Boehme's system with the enhanced capability of "so that

the customized HTML tags comprises the desired outcome of the target XSL file.” (Kim: page 1, paragraph [0009]).

**Claim 12** is rejected as substantially similar as claim 6, for the similar reasons.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YU ZHAO whose telephone number is (571)270-3427. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mahmoudi, Tony can be reached on (571) 272-4078. The fax phone number for the organization where this application or proceeding is assigned is 571-270-4427.

Art Unit: 2169

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Date: 6/4/2009

/Yu Zhao/

Examiner, Art Unit 2169

/Yicun Wu/

Primary Examiner, Art Unit 2158